


FORM PTO-1449/A and B (Modified)		APPLICATION NO.: 10/776,427	ATTY. DOCKET NO.: H0498.70079US01
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: 02/11/04	CONFIRMATION NO.: 4054
		APPLICANT: George M. Whitesides, et al.	
		GROUP ART UNIT: 1763	EXAMINER: Maureen Gramaglia Arancibia
Sheet 1 of 5			

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	RE33,581		Nicoli, et al.	04-30-1991
	A2	2,905,539		Bowerman	09-22-1959
	A3	3,497,377		Allingham	02-24-1970
	A4	3,559,570		Martel, et al.	02-02-1971
	A5	3,641,354		DeMent	02-08-1972
	A6	3,716,359		Sheridon	02-13-1973
	A7	3,873,357		Lando	03-25-1975
	A8	4,011,009		Lama, et al.	03-08-1977
	A9	4,173,075		Stewart	11-06-1979
	A10	4,274,706		Tangonan	06-23-1981
	A11	4,279,852		Engelmann	07-21-1981
	A12	4,325,779		Rossetti	04-20-1982
	A13	4,330,175		Fujii, et al.	05-18-1982
	A14	4,382,657		Lemaitre	05-10-1983
	A15	4,477,158		Pollock, et al.	10-16-1984
	A16	4,512,848		Deckman, et al.	04-23-1985
	A17	4,528,260		Kane	07-09-1985
	A18	4,582,566		Grey	04-15-1986
	A19	4,587,213		Malecki	05-06-1986
	A20	4,690,715		Allara, et al.	09-01-1987
	A21	4,728,591		Clark, et al.	03-01-1988
	A22	4,731,155		Napoli, et al.	03-15-1988
	A23	4,802,951		Clark, et al.	02-07-1989
	A24	4,818,336		Rossetti	04-04-1989
	A25	4,842,633		Kuribayashi, et al.	06-27-1989
	A26	4,897,325		Akkapeddi, et al.	01-30-1990
	A27	4,999,489		Huggins	03-12-1991
	A28	5,009,708		Grünwald, et al.	04-23-1991
	A29	5,018,829		Ogawa	05-28-1991
	A30	5,020,879		Kuzuta, et al.	06-04-1991
	A31	5,032,216		Felten	07-16-1991
	A32	5,079,600		Schnur, et al.	01-07-1992
	A33	5,106,182		Briggs, et al.	04-21-1992
	A34	5,143,854		Pirrung, et al.	09-01-1992
	A35	5,172,171		Beaudet, et al.	12-15-1992
	A36	5,202,227		Matsuda, et al.	04-13-1993
	A37	5,255,273		Nilsson, et al.	10-19-1993
	A38	5,259,926		Kuwabara, et al.	11-09-1993

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 10/776,427		ATTY. DOCKET NO.: H0498.70079US01		
				FILING DATE: February 11, 2004		CONFIRMATION NO.: 4054		
				APPLICANT: George M. Whitesides, et al.				
				GROUP ART UNIT: 1763		EXAMINER: Maureen Gramaglia Arancibia		
Sheet	2	of	5					

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
	A39	5,294,369		Shigekawa, et al.	03-15-1994
	A40	5,315,436		Lowenhar, et al.	05-24-1994
	A41	5,512,131		Kumar, et al.	04-30-1996
	A42	5,776,748		Singhvi, et al.	07-07-1998
	A43	5,900,160		Whitesides, et al.	05-04-1999
	A44	5,937,758		Maracas, et al.	08-17-1999
	A45	5,976,826		Singhvi et al.	11-02-1999
	A46	6,020,047		Everhart	02-01-2000
	A47	6,180,239		Whitesides, et al.	01-30-2001
	A48	6,368,838		Singhvi, et al.	04-09-2002
	A49	6,413,587		Hawker, et al.	07-02-2002
	A50	6,518,168		Clem, et al.	02-11-2003
	A51	6,776,094		Whitesides, et al.	08-17-2004
	A52	2002/0071943		Hawker, et al.	06-13-2002
	A53	2002/0094572		Singhvi, et al.	07-18-2002

FOREIGN PATENT DOCUMENTS



Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/Country	Number	Kind Code			
	B1*	JP	58150148		(Abstract Only)	09-06-1984	
	B2*	JP	2140702		Hidehiko (Abstract Only)	05-30-1990	
	B3*	JP	2165933		Motoyuki (Abstract Only)	06-26-1990	
	B4*	JP	2210302		Yasutsugu (Abstract Only)	08-21-1990	
	B5*	WO	95/12480		Rothschild, et al.	05-11-1995	
	B6*	WO	97/07429		Clem, et al.	02-27-1997	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)	
	C1*	ABBOTT, et al., "Manipulation of the Wettability of Surfaces on the 0.1-to 1-Micrometer Scale Through Micromachining and Molecular Self-Assembly", Science 257, pp. 1380-1382 (Sep. 4, 1992)		
	C2*	ABBOTT, et al., "Potential-Dependent Wetting of Aqueous Solutions on Self-Assembled Monolayers Formed from 15-(Ferrocenylcarbonyl)pentadecanethiol on Gold", Langmuir 10, pp. 1493-1497, May 20, 1994		
	C3*	ABBOTT, NICHOLAS L., et al., "Active Control of Wetting Using Applied Electrical Potentials and Self-Assembled Assembled Monolayers", Langmuir, vol. 11, No. 1, pp. 16-18 (1995)		
	C4*	BHATIA, SURESH K., et al., "Fabrication of Surfaces Resistant to Protein Adsorption and Application to Two-Dimensional Protein Patterning", Anal. Biochem., vol. 208, pp. 197-205 (1993)		



FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICATION NO.: 10/776,427	ATTY. DOCKET NO.: H0498.70079US01
		FILING DATE: February 11, 2004	CONFIRMATION NO.: 4054
		APPLICANT: George M. Whitesides, et al.	
		GROUP ART UNIT: 1763	EXAMINER: Maureen Gramaglia Arancibia
Sheet .	3	of	5

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C5*	BIEBUYCK, et al., "Self-Organization of Organic Liquids on Patterned Self-Assembled Monolayers of Alkanethiolates on Gold", Langmuir 10, pp. 2790-2793 (Mar. 14, 1994)	
	C6*	BRITLAND, et al., "Micropatterned Substratum Adhesiveness: A Model for Morphogenetic Cues Controlling Cell Behavior", Exper. Cell Research 198, pp. 124-129 (Jan. 20, 1992)	
	C7*	CALVERT, JEFFREY M., Calvert et al., "Deep Ultraviolet Lithography of Monolayer Films with Selective Electroless Metallization", J. Electrochem. Soc., vol. 139, No. 6, pp. 1677-1680 (1982)	
	C8*	CALVERT, JEFFREY M., et al., "Deep ultraviolet patterning of monolayer films for high resolution lithography", J. Vac. Sci. Technol. B, vol. 9, No. 6, pp. 3447-3450 (1991)	
	C9*	CALVERT, JEFFREY M., et al., "New Surface Imaging Techniques for Sub-0.5 Micrometer Optical Lithography", Solid State Technology, pp. 77-82 (1991)	
	C10*	CROMIE, "Self-Assembling Molecules Manipulated by Chemists", Harvard's Gazette (Jul. 9, 1993)	
	C11*	DOBISZ, E.A., et al., "Self-Assembled Monolayer Films for Nanofabrication," Mat. Res. Soc Symp. Proc., vol. 380, 1995	
	C12*	DRESSICK, WALTER J., et al., "Photopatterning and Selective Electroless Metallization of Surface-Attached Ligands", Chem. Mater., vol. 5, No. 2, pp. 148-150 (1993)	
	C13*	DULCEY, et al., "Deep UV Photochemistry of Chemisorbed Monolayers: Patterned Coplanar Molecular Assemblies", Science 252, pp. 551-554 (Apr. 26, 1991)	
	C14*	GORMAN, CHRISTOPHER B., et al., "Control of the Shape of Liquid Lenses on a Modified Gold Surface Using an Applied Electrical Potential across a Self-Assembled Monolayer", Langmuir, vol. 11, No. 6, pp. 2242-2246 (1995)	
	C15*	GORMAN, CHRISTOPHER B., et al., "Fabrication of Patterned, Electrically Conducting Polypyrrole Using a Self-Assembled Monolayer: A Route to All-Organic Circuits", Chem. Mater., vol. 7, No. 3, pp. 526-529 (1995)	
	C16*	GORMAN, et al., "Use of a Patterned Self-Assembled Monolayer to Control the Formation of a Liquid Resist Pattern on a Gold Surface", Chem. Mater. 7, pp. 252-254 (Feb. 15, 1995)	
	C17*	HARTNEY, M. A., et al., "Silylation of focused ion beam exposed resists", Appl. Phys. Lett., vol. 59, No. 4, pp. 485-487 (1991)	
	C18*	HUBER, et al., "Toroidal grating obtained on an elastic substrate", Applied Optics 20(12), pp. 2139-2142, Jun. 15, 1981	
	C19*	HUBER, M.C.E., et al., "Toroidal grating obtained on an elastic substrate", Applied Optics, vol. 20, No. 12, pp. 2139-2142 (1981)	
	C20*	ICHINOSE, NOBUYUKI, "Immobilization of Protein on Micropatterns by the Use of Photoremovable Activated Ester", Chemistry Letters, pp. 237-238 (1995)	
	C21*	IRELAND, et al., "Limitation of Substratum Size Alters Cyto-Skeletal Organization and Behaviour of Swiss 3T3 Fibroblasts", Cell Bio. Int'l Reports 13, pp. 781-790 (Sep., 1989)	
	C22*	JACOBSEN, et al., "Design, Analysis, and Experimental Results for the Wobble Motor: An Eccentric-Motion Electrostatic Microactuator", SPIE 1167, pp. 122-136 (1989)	
	C23*	JACOBSEN, et al., "Fabrication of Micro-Structures Using Non-Planar Lithography (NPL)", Proceedings, IEEE; Micro Electro Mechanical Systems, An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots, Nara, Japan, Jan. 30-Feb. 2, 1991	
	C24*	JACOBSEN, et al., "The Wobble Motor: Design Fabrication and Testing of an Eccentric-Motion Electrostatic Microactuator", IEEE, pp. 1536-1546, (1989)	
	C25*	KANG, DORIS, et al., "Patterned Functionalization of Gold and Single Crystal Silicon via Photochemical Reaction of Surface-Confined Derivatives of (.eta..sup.5- C.sub.5 H.sub.5)Mn(CO).sub.3 ", Langmuir, vol. 7, No. 10, pp. 2169-2174 (1991)	

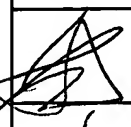

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICATION NO.: 10/776,427	ATTY. DOCKET NO.: H0498.70079US01
		FILING DATE: February 11, 2004	CONFIRMATION NO.: 4054
		APPLICANT: George M. Whitesides, et al.	
		GROUP ART UNIT: 1763	EXAMINER: Maureen Gramaglia Arancibia
Sheet .	4	of	5


OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C26*	KIM, et al., Combining Patterned Self-Assembled Monolayers of Alkanethiolates on Gold with Anisotropic Etching of Silicon to Generate Controlled Surface Morphologies, J. Electrochem. Soc. 142(2), pp. 628-633 (Feb., 1995)	
	C27*	KLEINFELD, et al., "Controlled Outgrowth of Dissociated Neurons on Patterned Substrates", Journal of Neuroscience, 8, pp. 4098-4120 (Nov., 1988)	
	C28*	KOLOSKI, TIMOTHY S., et al., "Nucleophilic Displacement Reactions at Benzyl Halide Self-Assembled Monolayer Film Surfaces", Langmuir, vol. 10, No. 9, pp. 3122-3133 (1994)	
	C29*	KUMAR, AMIT, et al., "Features of gold having micrometer to centimeter dimensions can be formed through a combination of stamping with an elastomeric stamp and an alkanethiol 'ink' followed by chemical etching", Appl. Phys. Lett., vol. 63, No. 14, pp. 2002-2004 (1993)	
	C30*	KUMAR, AMIT, et al., "Patterning Self-Assembled Monolayers: Applications in Materials Science", American Chemical Chemical Society, Langmuir Vol. 10, No. 5 (1994), pp. 1498-1511	
	C31*	KUMAR, et al., "Patterning Self-Assembled Monolayers: Applications in Materials Science", Langmuir 10, pp. 1498-1511 (May 20, 1994)	
	C32*	KUMAR, et al., "The Use of Self-Assembled Monolayers and a Selective Etch to Generate Patterned Gold Features", Amer. Chem. Society. 14, pp. 9188-9189 (Nov. 4, 1992)	
	C33*	LABINIS, et al., "Comparison of the Structures and Wetting Properties of Self-Assembled Monolayers of n-Alkanethiols on the Coinage Metal Surfaces, Cu, Ag, Au.sup.1", Amer. Chem. Soc. 113(19), pp. 7152-7167 (Jan. 14, 1991)	
	C34*	LERCEL, M. J., et al., "Pattern transfer of electron beam modified self-assembled monolayers for high-resolution lithography", J. Vac. Sci. Technol. B, vol. 13, No. 3, pp. 1139-1143 (1995)	
	C35	LERCEL, Microelect Eng, 27:43-46 (1995)	
	C36*	LOPEZ, et al., "Convenient Methods for Patterning the Adhesion of Mammalian Cells to Surfaces Using Self-Assembled Monolayers of Alkanethiolates on Gold", Amer. Chemical Society 115, pp. 5877-5878 (Feb. 22, 1993)	
	C37*	LOPEZ, et al., "Imaging of Features on Surfaces by Condensation Figures", Science 260, pp. 647-649 (Apr. 30, 1993)	
	C38*	MATSUDA, et al., "Development of Micropatterning Technology for Cultured Cells", Trans. Am. Soc. Artif. Intern Organs 36 (1990)	
	C39*	McGOVERN, et al., "Role of Solvent on the Silanization of Glass with Octadecyltrichlorosilane", Langmuir, Jun. 20, 1994, vol. 10; No. 10, pp. 3607-3614	
	C40*	MOFFAT, T.P., et al., "Patterned Metal Electrodeposition Using an Alkanethiolate Mask," J. Electrochem. Soc., vol. 142, No. 11, Nov. 1995	
	C41*	O'NEILL, et al., "Narrow Linear Strips of Adhesive Substratum are Powerful Inducers of Both Growth and Focal Contact Area", Cell Science 95, pp. 577-586 (Jan. 2, 1990)	
	C42*	PARIKH, et al., "An Intrinsic Relationship Between Molecular Structure in Self-Assembled n-Alkylsiloxane Monolayers and Deposition Temperature", J. Phys. Chem., May 3, 1995, vol. 98, No. 31, pp. 7577-7590	
	C43*	PONTEN, et al., "Proliferation Control in Cloned Normal and Malignant Human Cells", Exper. Cell Research, pp. 367-375 (May 12, 1980)	
	C44*	POTOCHNIK, STEPHEN J., et al., "Selective Copper Chemical Vapor Deposition Using Pd-Activated Organosilane Films", Langmuir, vol. 11, No. 6, pp. 1841-1845 (1995)	
	C45*	PRITCHARD, DAVID JOHN, et al., "Micron-Scale Patterning of Biological Molecules", Angew. Chem. Int. Ed. Engl. Engl., vol. 34, No. 1, pp. 91-93 (1995)	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICATION NO.: 10/776,427	ATTY. DOCKET NO.: H0498.70079US01
		FILING DATE: February 11, 2004	CONFIRMATION NO.: 4054
		APPLICANT: George M. Whitesides, et al.	
		GROUP ART UNIT: 1763	EXAMINER: Maureen Gramaglia Arancibia
Sheet-	5	of	5

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C46*	ROZSNYAI, LAWRENCE F., et al., "Selective Electrochemical Deposition of Polyaniline via Photopatterning of a Monolayer-Modified Substrate", J. Am. Chem. Soc., vol. 116, No. 13, pp. 5993-5994 (1994)	
	C47*	SCHOER, J.K., et al., "Scanning Probe Lithography," Langmuir, vol. 10, No. 3, pps. 615-618, 1994. (Abstract)	
	C48*	SINGHVI, et al., "Engineering Cell Shape and Function", Science 264, p. 696 (Apr. 29, 1994)	
	C49*	SONDAG-HUETHORST, J.A.M., et al., "Generation of electrochemically deposited metal patterns by means of electron beam (nano)lithography of self-assembled monolayer resists", Appl. Phys. Lett., vol. 64, No. 3, pp. 285-287 (1994)	
	C50*	SPINKE, et al., "Molecular Recognition at Self-Assembled Monolayers: Optimization of Surface Functionalization", J. Chem. Phys., vol. 99, No. 9, pp. 7012-7019, Nov. 1, 1993	
	C51*	STENGER, DAVID A., "Coplanar Molecular Assemblies of Amino-and Perfluorinated Alkylsilanes: Characterization and Geometric Definition of Mammalian Cell Adhesion and Growth", J. Am. Chem. Soc., vol. 114, No. 22, pp. 8435-8442 (1992)	
	C52*	TARLOV, et al., "UV Photopatterning of Alkanethiolate Monolayers Self-Assembled on Gold and Silver", Am. Chem. Soc. 115 (Apr. 13, 1993)	
	C53*	TIBERIO, et al., "Self-Assembled Monolayer Electron Beam Resist on GaAs", Anal. Phys. Lett., Feb. 1, 1993	
	C54*	VARGO, et al., "Monolayer Chem. Lithography and Characterization of Fluoropolymer Films", Langmuir 8, pp. 130-134 (Jan. 20, 1992)	
	C55*	WESTERMARK, B., "Growth Control in Miniclones of Human Glial Cells", Exper. Cell Res. 111, pp. 295-299 (Feb. 15, 1978)	
	C56*	WHITESIDES, et al., "Wet Chemical Approaches to the Characterization of Organic Surfaces: Self-Assembled Monolayers, Wetting, and the Physical-Organic Chemistry of the Solid-Liquid Interface", Langmuir 6, pp. 87-96 (Jan. 31, 1990)	
	C57*	WILBUR, et al., "Microfabrication by Microcontact Printing of Self-Assembled Monolayers", Advanced, Research News, Adv. Mater. (1994) 6, No. 7/8, pp. 600-604 Materials Research News. Adv. Mater. (1994) 6, No. 7/8, pp. 600-604	
	C58*	WOLLMAN, ERIC W., et al., "Photosensitive Self-Assembled Monolayers on Gold: Photochemistry of Surface-Confined Aryl Azide and Cyclopentadienylmanganese Tricarbonyl", J. Am. Chem. Soc., vol. 116, No. 10, pp. 4395-4404 (1994)	
	C59*	WOLLMAN, ERIC W., et al., "Scanning Electron Microscopy for Imaging Photopatterned Self-Assembled Monolayers on Gold", Langmuir, vol. 9, No. 6, pp. 1517-1520 (1993)	
	C60*	XIA, YOUNAN, et al., "Microcontact Printing of Octadecylsiloxane on the Surface of Silicon Dioxide and Its Application in Microfabrication", Langmuir, pp. 9576-9578 (1995)	

EXAMINER: 	DATE CONSIDERED: 9/10/05
---	--------------------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

a copy of this reference is not provided as it was previously cited by or submitted to the office in prior applications, Serial No. 08/677,309, filed July 9, 1996 and Serial No. 09/164,733, filed October 1, 1998, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE - The Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC 371 after June 30, 2003. See 37 CFR 1.491(b). For all patent applications filed on or before June 30, 2003, copies of cited U.S. patents and patent application publications are still required unless an eIDS is filed. Copies of all other patent(s), publication(s), or other information listed must still be provided, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]